

HPT External

50mm to 200mm

Architectural microrib external panels.



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PANEL DATA

Cover width:

1155mm

Panel Thickness (mm)	Min. Panel Length (m)	Thermal Transmittance U W/M ² K *	Weight Kg/m ² (0.5/0.5)
50	2.4	0.39	10.5
80	2.0	0.25	11.8
100	2.0	0.20	12.6
125	2.0	0.16	13.7
150	2.0	0.13	14.8
175	2.0	0.11	15.9
200	2.0	0.10	16.9

* Thermal transmittance based on a mean thermal conductivity value of 0.02038 W/mK.

Panel Thickness (mm)	UDL (kN/m ²) * Span L in metres **														
	2.5	3	3.5	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5
50	2.22	1.49	1.02	0.72	0.52	-	-	-	-	-	-	-	-	-	-
	1.73	1.07	0.67	0.42	0.26	-	-	-	-	-	-	-	-	-	-
80	4.02	2.79	2.05	1.57	1.25	1.00	0.80	0.63	0.50	-	-	-	-	-	-
	4.02	2.79	1.95	1.38	1.00	0.72	0.53	0.39	0.29	-	-	-	-	-	-
100	7.86	3.49	2.57	1.97	1.55	1.26	1.04	0.87	0.74	0.64	0.56	-	-	-	-
	5.03	3.49	2.57	1.96	1.55	1.26	0.93	0.71	0.55	0.42	0.33	-	-	-	-
125	-	4.37	3.21	2.46	1.94	1.57	1.30	1.09	0.93	0.80	0.70	0.61	0.54	-	-
	6.29	4.37	3.21	2.46	1.93	1.57	1.3	1.09	0.93	0.77	0.61	0.46	0.40	-	-
150	-	5.25	3.86	2.95	2.33	1.89	1.56	1.31	1.13	0.96	0.84	0.74	0.65	0.65	0.58
	7.55	5.25	3.86	2.95	2.33	1.89	1.56	1.32	1.12	0.96	0.84	0.74	0.65	0.53	0.44
175	-	6.13	4.50	3.45	2.72	2.21	1.82	1.53	1.31	1.13	0.98	0.86	0.76	0.68	0.61
	8.82	6.13	4.5	3.45	2.72	2.21	1.82	1.53	1.31	1.13	0.98	0.86	0.76	0.68	0.61
200	-	7.00	5.15	3.94	3.11	2.52	2.08	1.75	1.49	1.29	1.12	0.99	0.87	0.78	0.70
	-	7.00	5.15	3.94	3.11	2.52	2.08	1.75	1.49	1.29	1.12	0.99	0.87	0.78	0.70

* Pressure/Suction load type.

** Spans specified are not fire test condition. Refer to 'Fire Matrix' document for further detail.

All spans are based on single span conditions, and using 0.5mm internal and external steel sheets.

Shaded cells denote dark coloured steels, un-shaded denote light coloured steels.

Span lengths vary between dark & light colours due to differing UV absorption on the panel face, hence giving varying deflection criteria.

The normal assumption for external façade installation is to utilise a mean fixing temperature of 10°C.

Note:

- Values have been calculated in accordance with BS EN 14509 : 2013 self-supporting double skin metal faced insulating panels.
- Also in accordance with European recommendations for design of sandwich panels ECCS Doc 115 : 2001.
- The following deflection limits have been used. Pressure and Suction L/100.
- All loads stated are working loads and calculated load should be unmanufactured. All loads to be calculated in accordance with BS6399-2 : 1997 or BS EN 1991-1-4 : 2005 + A1 : 2010.
- For any intermediate values contact HPT.
- We recommend that the allowable steelwork tolerance between adjacent columns in L/600 where L is the distance between columns.
- Where different deflection criteria, point loads and medium to long term imposed loads are applied to panels HPT should be consulted.
- Sufficient numbers of fasteners are required to secure panels to the structural frame. Panels are not safe until correct numbers of fasteners are installed.
- Positive and negative wind loads resisted by the panel are dependent on the fastener regime; please consult HPT for recommended fastener types and notes.
- The minimum bearing width on panel ends to be 100mm per end, please consult HPT for bearing widths less than this.

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INSULATION CORE

PIR Polyisocyanurate closed cell insulation HCFC free zero ODP rated core.

PANEL JOINT

Tongue and groove joint achieves excellent vapour resistance, hygiene seal, thermal and fire performance.

AIR LEAKAGE

Panel joint air-tightness = 0.01 m³/m²/hr at 50 Pa when tested to EN 12114 in accordance with BS EN 14509: 2013.

MATERIALS - STEEL

Panel Finishes	Manufacturer *	Internal Steel Face	External Steel Face	Steel Substrate	Paint Thickness μm (nominal)	Laminate Thickness μm (nominal)	Plastisol Thickness μm (nominal)
Ultra	Colorcoat HPS200 Ultra® by Tata Steel	✓	✓	0.5mm Galvalloy	-	-	200
Prisma	Colorcoat Prisma® by Tata Steel	✓	✓	0.5mm Galvalloy	50	-	-
Colorcoat LG	Colorcoat® by Tata Steel	✓	✓	0.5mm Z275 HDG	-	-	200
PVDF	Various	✓	✓	0.5mm	27	-	-
Foodsafe Laminate	Various	✓		0.5mm Z225 HDG	-	120	-
Polyester	Various	✓		0.5mm Z225 HDG	25	-	-
Primer / Liner	Various	✓		0.5mm Z225 HDG	7-10	-	-

* Other brands are available.

Facing Profile Options:

External: • Microrib (as standard) • Smooth (request only) Internal: • 100 Rib • Smooth

FIRE

Reaction to fire:

White Foodsafe Laminate (WFSL) steel facings have a reaction to fire according to EN13501-1 of: B, s1, d0. For fire specification on other panel finishes please contact HPT.

Tested to LPS 1181 Part 1 'reaction to fire' external cladding applications (Cert: 558b).

ACOUSTICS

All panels have a predicted figure weighted sound reduction $R_w = 27\text{dB}$.

QUALITY & DURABILITY

HPT panels are manufactured from high quality materials, using state of the art production equipment to rigorous quality control standards (complying with an approved BS EN ISO 9001 QMS standard) ensuring long-term durability and service life.

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GUARANTEES & WARRANTIES

Please refer to HPT, typically up to 25 years product warranty available (dependant on application).



PANEL WARRANTY

PACKING

Standard Packing

HPT panels are stacked horizontally. Protective jiffy foam is laid between the ends of each panel. The entire pack is wrapped in protective polythene.

The number of panels in each pack depends on panel length and weight. Typical pack height is 1100mm.

Panel Thickness	50mm	80mm	100mm	125mm	150mm	175mm	200mm
No. panels/pack (max)	10	10	9	7	6	5	4

Maximum pack weight is 1000kg. Each pack is labeled with project information and customer panel references.

DELIVERY

All deliveries are by road transport to project site. Off loading & storage is the responsibility of the customer.

SITE PROCEDURE

Panel care information and indicative drawings are available from HPT.